## REMARKS

This paper is submitted in response to the non-final Office Action dated June 28, 2007 (the "Office Action").

Claims 25-46 are pending in the application.

Claims 25-46 stand rejected.

Claims 36-46 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 25-46 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 25-28, 31-32, 34-39, 42-43, and 45-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,922,791 issued to Mashayekhi et al. ("Mashayekhi"), in view of U.S. Patent Publication No. 2005/0177832 naming Chew as inventor ("Chew"). Claims 29 and 40 stand rejected under § 103(a) as being unpatentable over Mashayekhi and Chew in view of U.S. Patent No. 6,874,145 naming Ye et al as inventor ("Ye"). Claims 30 and 41 stand rejected under § 103(a) as being unpatentable over Mashayekhi and Chew in view of U.S. Patent Publication No. 2004/0049579 naming Ims et al as inventor ("Ims"). Claims 33 and 44 stand rejected under § 103(a) as being unpatentable over Mashayekhi and Chew in view of U.S. Patent No. 5,958,070 naming Stiffler as inventor ("Stiffler").

The amendments add no new matter. Support for the amendments may be found, for example, in FIG. 17 and the associated discussion of the present application as originally filed.

Applicant respectfully submits that the claims are allowable in view of the above amendments and the following remarks.

### *Rejection of Claims under § 101*

Claims 36-46 stand rejected under § 101 as being directed to non-statutory subject matter. The Office Action argues that the modules that were included in independent claim 36, for example, are not among the categories of invention in § 101.

Applicant respectfully disagrees with the proposition that the former claim language regarding modules should render claim 36 unpatentable. Nonetheless, to further prosecution, Applicant has amended independent claim 36. Applicant respectfully submits that, as amended, independent claim 36 and all claims dependent therefrom are allowable under § 101.

### *Rejection of Claims under § 112, second paragraph*

Claims 25-46 stand rejected under § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to independent claims 25 and 36, the Office Action refers to language regarding the identifying of systems, among a plurality of systems, that meet a requirement. The Office Action takes exception to the accompanying language regarding the possible situation that none of systems among the plurality meet this requirement. Applicant respectfully submits that the language previously present in claims 25 and 36 is not unclear. Nonetheless, to further prosecution, Applicant has amended independent claims 25 and 36. Applicant respectfully

submits that, as amended, independent claims 25 and 36 and all claims dependent therefrom are allowable under § 112, second paragraph.

With regard to claims 30 and 41, the Office Action takes exception to the language regarding "a second system," without explicit identification of a first system. Applicant respectfully submits that the language previously present in claims 30 and 41 is not unclear. Nonetheless, to further prosecution, Applicant has amended independent claims 30 and 41. Applicant respectfully submits that, as amended, independent claims 30 and 41 are allowable under § 112, second paragraph.

***Rejection of Claims under § 103***

Claims 25-28, 31-32, 34-39, 42-43, and 45-46 stand rejected under § 103(a) as being unpatentable over Mashayekhi in view of Chew. Claims 29 and 40 stand rejected under § 103(a) as being unpatentable over Mashayekhi and Chew in view of Ye. Claims 30 and 41 stand rejected under § 103(a) as being unpatentable over Mashayekhi and Chew in view of Ims. Claims 33 and 44 stand rejected under § 103(a) as being unpatentable over Mashayekhi and Chew in view of Stiffler.

Applicant respectfully submits that the claims are allowable under § 103(a) because the cited portions of the references, whether taken individually or in combination, fail to disclose each limitation of the pending claims.

For example, amended independent claim 25 recites:

> 25. A method comprising:
> determining whether no single system among a plurality of systems meets a resource requirement for hosting a first application among a plurality of applications; and

if the determining indicates that no single system among the plurality of systems meet the resource requirement,

using a respective priority for each of the applications for identifying a resource to free, wherein the resource is one of a plurality of resources, each of the resources is associated with at least one of the plurality of systems, and freeing the resource would cause a first system, associated with the resource, among the plurality of systems to meet the resource requirement; and

freeing the resource in response to the identifying the resource.

(Emphasis added.)

With regard to the limitation of freeing a resource, Chew states, in relevant part:

> Step 282 of FIG. 4 terminates the application with the lowest priority value. The procedure then returns to step 276 to determine whether the currently available resources (after terminating the application in step 282) are sufficient to handle the new application program. The procedure continues terminating applications until the available resources are sufficient to handle the new application program.

(Chew at ¶ 48, emphasis added.)

The cited portion of Chew teaches the successive termination of applications starting with applications that have the lowest priority values. After terminating an application, Chew determines whether the currently available resources are sufficient to handle a new application program. The Chew applications are terminated in order, according to priority value, until the available resources are sufficient to handle the new application program.

In contrast, Applicant's claim 25 includes freeing a resource in response to identifying a resource to free. That is, claim 25 includes identifying a resource to free, and this operation is performed before the resource is freed. This temporal ordering is counter to that which is taught in the cited passages of Chew. Chew teaches that the determination of whether currently available resources are sufficient is made after terminating an application. This teaching is

counter to Applicant's claim 25, which requires that the resource to free must be identified before the resource is freed.

This distinction is not trivial. For a variety of reasons, the cited teachings of Chew would not, and could not, achieve the invention as set forth in Applicant's claim 25.

For example, when Chew terminates applications the termination starts with the application with the lowest priority value. A person having ordinary skill in the art would readily appreciate that in various situations, this operation is unnecessary and wasteful. For example, if the lowest-priority applications in Chew are ones that use only a small amount of resources, then terminating those applications may not make a significant difference in the amount of available resources. In such situations, terminating the lowest-priority applications may be unnecessary: one or more medium-priority applications will need to be terminated in order to accommodate the new application in Chew. Depending on the situation, it is possible or even probable that the lowest-priority applications could be left running, and that only one or a few medium-priority applications need to be terminated to accommodate the new application in Chew. In these circumstances, Chew unnecessarily (and perhaps harmfully) terminates low-priority applications that do not need to be terminated.

Such imprudent operations can be avoided in some embodiments of Applicant's invention, as presented in claim 25. This distinction arises for various reasons, including the above-noted limitation that in claim 25 the resource to free is identified before the resource is freed. Claim 25 requires identifying a resource to free, such that freeing the resource would cause a first system to meet the resource requirement. This limitation may be used, in some embodiments, to avoid the kind of waste and unnecessary termination that can happen in the Chew system. In the method of claim 25, the resource to be freed is already known to be

adequate before it is freed: it is identified according to criteria that establish that "freeing the resource would cause a first system . . . to meet the resource requirement."

This limitation regarding which resource to free is simply not disclosed in the cited portions of Chew. Indeed, Chew teaches against such a consideration, because Chew encourages an approach that can wastefully terminate applications before determining that the terminating is helpful to the goal of obtaining sufficient resources.

The cited passages of Mashayekhi, Ye, Ims, and Stiffler do not remedy the shortcomings of Chew. Indeed, a combination of any one or more of these references with the cited Chew would not achieve Applicant's claim 25 because the cited passage of Chew teach an approach that is counter to the operations set forth in claim 25.

At least for these reasons, Applicant respectfully submits that independent claim 25 and all claims dependent therefrom are allowable under § 103(a). At least for similar reasons, Applicant respectfully submits that independent claim 36 and all claims dependent therefrom are also allowable under § 103(a).

## CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5097.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant

also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

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